CMHC
Canada Mortgage and Housing Corporation

SCHL
Société canadienne d'hypothèques et de logement

# Determinants of Rental Rehabilitation: A Study of Factors Considered by RRAP(P) Applicants

Research Report

April 1983

Canada

*Canada Mortgage and Housing Corporation, the Federal Government's housing agency, is responsible for administering the National Housing Act.*

*This legislation is designed to aid in the improvement of housing and living conditions in Canada. As a result, the Corporation has interests in all aspects of housing and urban growth and development.*

*Under Part V of this Act, the Government of Canada provides funds to CMHC to conduct research into the social, economic and technical aspects of housing and related fields, and to undertake the publishing and distribution of the results of this research. CMHC therefore has a statutory responsibility to make widely available, information which may be useful in the improvement of housing and living conditions.*

*This publication is one of the many items of information published by CMHC with the assistance of federal funds.*

# DETERMINANTS OF RENTAL REHABILITATION

## A STUDY OF FACTORS CONSIDERED BY RRAP(P) APPLICANTS

Summary

Prepared for

Policy Development and Research Sector

Canada Mortgage and Housing Corporation

by

Vischer Skaburskis, Planners

Vancouver, B.C.

September 1982

Principal Consultant: A. Skaburskis, PhD

CMHC Project Manager: Katharine Kemp

© Canada Mortgage and Housing Corporation 1983
Cat No. NH20-1/1-1983E
ISBN 0-662-12559-2

This study was conducted by Vischer Skaburskis, Planners for Canada Mortgage and Housing Corporation under Part V of the National Housing Act. The analysis, interpretations, and conclusions are those of the consultants and do not necessarily reflect the views of Canada Mortgage and Housing Corporation or those divisions of the Corporation that assisted in the study and its publication.

# DETERMINANTS OF RENTAL RESIDENTIAL REHABILITATION: A STUDY OF FACTORS CONSIDERED BY RRAP APPLICANTS

- SUMMARY -

prepared by

A. Skaburskis, Ph.D.

for

Canada Mortgage and Housing Corporation

## Table of Contents

OVERVIEW i

SUMMARY OF FINDINGS

1. Introduction 1

2. City, Neighbourhood, Building and Landlord Characteristics 1
   - 2.1 The Four Cities 1
   - 2.2 Program Take-up 2
   - 2.3 Building Characteristics 3
   - 2.4 Landlord Characteristics 6
   - 2.5 Period of Ownership 10
   - 2.6 Perceived Neighbourhood Changes 11
   - 2.7 Discussion 13

3. Building Condition and Rehabilitation Work 15
   - 3.1 Building Condition 15
   - 3.2 Building Condition and Landlord Characteristics 16
   - 3.3 The Rehabilitation Work 17
   - 3.4 The Effect of Changing RRAP Subsidy Levels 20
   - 3.5 Discussion 22

4. Rehabilitation Expenditures and Returns 23
   - 4.1 Pre-rehabilitation Property Values 23
   - 4.2 Pre-rehabilitation Revenues and Expenses 24
   - 4.3 Cost of Rehabilitation 25
   - 4.4 Rehabilitation Subsidies 27
   - 4.5 Borrowed Funds 27
   - 4.6 Financing Difficulties 28
   - 4.7 Rate of Return on Rehabilitation Investments 29
   - 4.8 Summary of Returns due to Rehabilitation 32
   - 4.9 Financial Returns and Landlord Characteristics 34

5. Landlords' Stated Reasons for Rehabilitating Their Buildings 38

6. Conclusions 39

# OVERVIEW

This study sought the determinants of rental residential rehabilitation decisions. It describes the reasons landlords give for deciding to rehabilitate their buildings. This study sought general information on landlords with buildings in need of rehabilitation, on the buildings, on the rehabilitation work and its cost and on landlord opinions regarding rental RRAP(P). The study did not attempt to evaluate RRAP(P): nor did it attempt to develop policy recommendations.

A number of hypotheses were advanced suggesting that the decision to rehabilitate rental housing within any given market is, in part, determined by the landlord's characteristics and expectations, building characteristics and neighbourhood trends. The ideal test for the hypothesis requires a sample including (1) landlords who took out RRAP loans, (2) who rehabilitated without government assistance, and (3) who own buildings in need of repair but have decided not to rehabilitate them. The pilot surveys conducted in Vancouver and London failed to yield representative samples of the last two groups of landlords: less than one in twenty landlords who had not applied for RRAP(P) assistance could be interviewed. As a result, the study was confined to RRAP applicants and attempts were made to interview all 470 landlords from Vancouver, London, Halifax and Quebec who applied for RRAP assistance during 1980. More than half (56.2%) of the applicants dropped out of the program and one out of four landlords cancelling RRAP proceeded with their own rehabilitation projects. The sample of 218 landlords includes 124 RRAP clients, 23 non-RRAP rehabilitators and 71 non-rehabilitators.

While this sample includes the three relevant groups of landlords, the use of RRAP application lists limits the degree to which results can be generalized. The findings developed by this study apply to landlords who, (1) recognize that their building is in need of rehabilitation, (2) would consider taking out a RRAP loan, and (3) own property within RRAP-eligible neighbourhoods. The results apply to the group of landlords that would be most affected by changes in government rehabilitation policies.

The definition of the sample universe precludes the testing of some hypotheses. In particular, hypotheses regarding the factors that make landlords aware that their buildings need rehabilitation cannot be tested without data on landlords who have buildings in disrepair but do not consider them to require rehabilitation. The decision to rehabilitate rather than replace a building cannot be explored without data on landlords who decided not to rehabilitate and apply for RRAP(P) assistance.

Sample size proved an obstacle in some cases by seriously reducing the power of statistical tests. Hypotheses regarding the role of financial factors proved particularly troublesome because

half the respondents could not tell us enough about their costs or expected returns to allow the construction of a simple pre-tax cash flow schedule. While the large amount of missing observations on building finance leads to general conclusions regarding the importance of this factor, the small number of valid observations precludes the serious analysis of the role financial considerations play in the decision process of the landlords who know what rehabilitation costs, what interest rates are charged on their loans and what changes in annual rental revenues to expect. Due to the large number of missing observations, a comprehensive analysis of rehabilitation decisions requires a much larger sample than the one permitted by this study's budget.

This overview brings together, in qualitative terms, the general findings and conclusions developed through the analysis of landlord responses to a lengthy questionnaire. The attached summary presents the findings in more detail and provides some of their statistical back-up. The working paper and its appendices present the hypotheses, survey instruments, data descriptions, analysis plan, findings and summary of open-ended responses to questions asking owners why they did or did not rehabilitate, what they thought of RRAP and how government programs could be improved. The conclusions presented in the overview, the summary and the working paper are those of the author and not necessarily those of CMHC.

## 1. STATED DETERMINANTS

Most landlords say they rehabilitated their buildings because (1) "the building needed it," (2) government assistance was available, or (3) they wanted to improve their building's appearance. The main determinants for rehabilitation decisions are events precipitating the building's need for repairs, the landlord's general awakening to the fact that his or her building is in a poor state of repair, the landlords' recognition that government subsidies can help them improve their rental property, and the landlords' concern regarding the building's appearance and the tenants' well being.

Financial considerations were not the key factor motivating most landlord decisions to start a rehabilitation project. Nevertheless, financial considerations are important after the initial decision is made. Most landlords expect to raise revenues enough to cover their own outlays. While financial considerations are not the motivating factor for most landlords, they are important occasioning factors.*

---

* This study found that credit availability was not a major factor explaining why some landlords did not rehabilitate their buildings. "Red lining" by lending institutions was found <u>not</u> to exist.

The main determinants of a decision to rehabilitate a building are events such as the roof springing a leak, or the owner gradually becoming aware of his or her building's need for repairs and upgrading. The awareness of the need for rehabilitation coupled with the availability of apparently free money stimulates most RRAP clients into planning for action. The enthusiasm accompanying their early plans wanes for many when they become fully aware of RRAP rent controls and work requirements. The landlords' primary goal of fixing up what was in disrepair appears to be augmented by the objective calling for the recovery of the cost of doing the apparently "unnecessary" extra work needed to bring the building up to building code standards. The landlords hope the subsidy will cover these costs and many are outraged when they have to spend some of their own money on their own improvements.

## 2. GENERAL LANDLORD CHARACTERISTICS

A large number of respondents did not understand terms such as "net annual rental revenue". Some did not know the interest rate on their loans. Only four out of 216 respondents could say what their CCA claim was. Most RRAP applicants are, at best, small business people managing their real estate investments without a clear or immediate knowledge of financial returns and outlays. Most respondents could not do a net present value computation nor would they think of doing one before proceeding with their rehabilitation plans.

Half the rental RRAP(P) applicants live in the buildings they intend to rehabilitate. Half the landlords, therefore, share the quality of their housing environment with their tenants. Over half (56%) of RRAP applicants said they earned less than $16,000 in 1980 and 84% said they earned under $25,000. No "slum lord" was found among the 218 landlords interviewed. Most RRAP(P) clients are low- to middle-income property owners. Only 11% of respondents own their property through a corporation. All but four out of the 218 landlords interviewed were involved in managing their rental property. Ninety-four percent of the respondents managed and maintained their own buildings without employing a manager or janitor. While half the RRAP applicants do not live in the building they believe was in need of rehabilitation, most maintain direct contact with the building and its tenants. While half the owners could be called "absentee landlords", most are not far from their buildings.

## 3. REHABILITATION EXPERIENCE

Almost half (41%) of the RRAP applicants interviewed owned other rental residential buildings. Half of these own other buildings that were still in need of rehabilitation. Thirty-six percent of all respondents had previous rehabilitation experience. The owners without

any experience had the greatest propensity to drop their rehabilitation plans. Of the landlords who dropped RRAP(P) and proceeded on their own, 57% had previous rehabilitation experience. The analysis suggests that RRAP encourages most the inexperienced landlord. RRAP may, therefore, stimulate rehabilitation activity indirectly by helping develop rehabilitation expertise.

## 4. REHABILITATION ENTREPRENEURS

The study reveals the emergence of a class of landlord that can best be described as the rehabilitation entrepreneur. One in four respondents is a corporation, or owns more than two other rental residential buildings, or has previously carried out two or more rehabilitation projects. Most professional landlords are absentee owners. They most frequently buy property with the view of rehabilitating it. Twenty-seven percent of all respondents had applied for RRAP funds within a year of buying the building and most of these owners have the characteristics of the "professional rehabilitator". These landlords tend, more often, to buy the buildings in "worse" condition and do the most work on them. The rehabilitation projects carried out by this group are distinguished from those of other landlords by the extent to which they involve the "gutting" of buildings, moving interior walls or changing dwelling unit numbers. The projects carried out by the professional landlord-rehabilitator appear to involve renovations.

While most landlords suggest that the pursuit of a motherhood goal made them decide to rehabilitate their buildings, the professional landlord-rehabilitators mention the importance of government assistance programs in their decisions even when they dropped their RRAP application and proceeded on their own. These landlords consider RRAP(P) and NIP-induced neighbourhood improvements when deciding to buy a property in order to improve it. The professional landlord-rehabilitator is less optimistic then other landlords about the effect their rehabilitation project will have on the value of their property. The professional landlord more often rehabilitates to increase rents, reduce vacancies, attract better tenants, or reduce tenant complaints. Financial factors are far more important to the rehabilitation entrepreneur than they appear to be to the typical RRAP(P) neighbourhood landlord who rents out one or two units in his or her own house.

## 5. ELDERLY LANDLORDS

Landlord characteristics were also reviewed to determine whether or not identifiable subsets of RRAP-eligible landlords are excluded from program benefits. While firm conclusions could not be developed without a control sample including non-applicants, the elderly

landlord appears less often among the client group than was expected given the age distribution of landlords within RRAP-eligible areas. Several respondents asked that the elderly be provided with special assistance when hiring contractors and filling in RRAP application forms. Program take-up can be increased by more concerted advertising aimed at the elderly and by expending more efforts in explaining the application and rehabilitation processes to prospective elderly landlords.

## 6. NEIGHBOURHOOD TRENDS

Changing neighbourhood conditions were important to landlords. However, the changing conditions were important only to those landlords who saw the changes as being brought about by other rehabilitation projects. Neighbourhood changes brought about by rehabilitation projects encourage further rehabilitation activity. Neighbourhood changes brought about by replacement construction do not promote rehabilitation activity. The landlords interviewed considered that RRAP(P), by encouraging rehabilitation over replacement construction, promotes a neighbourhood trend that encourages further rehabilitation activity.

## 7. SUBSIDY LEVELS

Subsidy levels affect the extent of rehabilitation that takes place. Higher subsidies would encourage many landlords to do more work. They would encourage more landlords to undertake rehabilitation projects. The Quebec landlords in our sample received almost twice the assistance available to others as a result of Provincial and Municipal programs. They tend to do more work on their building than landlords in other provinces and half of the Quebec landlords compared to 15% of others say they would not have rehabilitated their buildings without the subsidy.

## 8. REHABILITATION WORK

The main work items carried out by rehabilitators involve painting, insulation, electrical system, roofing, other energy conservation, plumbing and improvements in the building's fire safety. With the exception of painting, the items are non-cosmetic in nature. The least frequent items of work are structural repairs, changing appliances, "other" work, landscaping, fixing up the building's exterior and carpeting. With the exception of structural repairs, the least frequent items of work are the cosmetic ones. Twenty-seven percent of the respondents moved interior walls, almost one-quarter "gutted" their buildings and 12% changed the number of units.

With some exceptions, the type of work carried out by the RRAP-assisted landlords and the owners proceeding on their own was similar. RRAP-assisted landlords tended to emphasize insultation and other energy conservation. Non-RRAP rehabilitators more frequently want to do more than repair the dwelling and more often added appliances and carpets. The RRAP recipients more frequently did a "lot of work" on the expensive items such as the electrical system and plumbing. This difference is due to the work requirements accompanying the RRAP subsidy.

## 9. REHABILITATION COSTS

The cost of rehabilitation projects differs substantially among application status and cities. The work done by RRAP clients costs, on average, $21,360 per building. Non-RRAP rehabilitators' work costs, on average, $47,721 per building. The work non-rehabilitators contemplated doing would, in their view, on average, have cost $25,169. The work done by RRAP clients tends to cost the least despite our earlier observation regarding the larger proportion of RRAP clients with buildings in "worse" condition.

Vancouver landlords spent $38,158 compared to $14,356 by London owners. Quebec City and Halifax landlords spent respectively $27,876 and $22,876. The average property values for Vancouver, London, Halifax and Quebec were $165,675, $55,000, $48,881 and $27,254 respectively. Landlord average outlays as a percent of applicants average property value for each city were 23.0 percent, 26.1 percent, 48.6 percent and 102.3 percent respectively. While Vancouver rehabilitation costs the most, the amount of work done on Vancouver buildings is less than that carried out by the average Quebec City and Halifax landlord. The price of rehabilitation services varies across the four cities and helps explain differences in RRAP(P) drop-out rates: program drop out is highest in cities with the highest prices charged for rehabilitation services.

Inter-urban variation in the price of rehabilitation services causes variation in the landlords' perceived value of the fixed $2,500 per unit RRAP subsidy. Since inflation in the price of rehabilitation services is concurrent with increases in the aggregate demand for housing, the relative cost of RRAP-imposed rent ceilings increases as the relative value of the fixed subsidy decreases. Variation in landlords' perceived benefit/cost ratios may partially explain inter-urban variations in program take-up rates.

## 10. REHABILITATION RETURNS

Respondents believe that rehabilitation increases the market value of their buildings by an average of $25,217. The 12 non-RRAP rehabilitators who answered this question perceived an average increase in property value of $65,033 as a result of their projects. The small number of cases precludes generalizations. RRAP clients and the landlords who did not rehabilitate believe that rehabilitation would add an average of $22,000 to the market value of their property.

Rehabilitation was thought by landlords to increase their gross annual revenues by an average of $4,242. Interesting variations in total revenue gains across RRAP-applicant status and cities could not be found due to the small number of cases. The average change in net revenues was $2,113. The average annual net increase in rental revenue due to rehabilitation is $2,501 for RRAP clients and zero for non-RRAP rehabilitators.* The addition of 1981 capital gains to net revenues raises the average annual gain to $3,995. After capital gains are accounted for, no statistically significant difference in expected returns can be identified among RRAP applicant or city categories.

The average RRAP applicant, who knows what his or her project costs and can articulate expectations regarding changes in annual revenues, should find their rehabilitation investment to be profitable. The impact most respondents believe rehabilitation has on the life of their building and on the value of their property should eliminate their need to increase rents to recover the cost of the work. If the owners' stated beliefs regarding the effect of rehabilitation on the value of their property are sincere, then the average landlord would see the rehabilitation process as a means of converting each of his or her own dollars into two dollars worth of real estate. Net present value computations using a 6% discount rate yield no negative values for the landlords who knew their rehabilitation costs and associated returns.

## 11. RRAP AS A DETERMINANT

The RRAP program is a major determinant affecting rehabilitation activity in a number of ways.

1) The subsidies lower the perceived cost of rehabilitation and therefore encourage more landlords to take on rehabilitation projects.

2) The work requirements imposed by the program make most subsidy recipients do more work than they would do had the program not been in place. RRAP clients, however, spend less in total than non-RRAP rehabilitators. The work requirements ensure that the older stock is more thoroughly upgraded than would otherwise be the case.

3) The study suggests that work inspired by both the subsidy's direct inducement and the work requirements improves neighbourhood conditions and improving neighbourhood conditions increases the likelihood that other landlords will rehabilitate their buildings.

---

* The average pre-rehabilitation net annual revenues for RRAP clients was $2,027 and $749 for non-RRAP rehabilitators. These statistics include owner-occupants' inputed rents. Thus, the average increase was 124 percent for RRAP clients.

4) RRAP by distorting perceived prices changes the rate of substitution between rehabilitation and replacement construction. Neighbourhood improvements are perceived to be related to the extent that rehabilitation occurs in an area. The relevant perceptions of neighbourhood change are not related to the rate at which new buildings are being built in the neighbourhood. This finding suggests that RRAP(P) has a further indirect impact on the rate at which Canada's older stock is being rehabilitated.

5) Changing neighbourhood conditions coupled with subsidy assistance encourages the rehabilitation entrepreneur to purchase the "worse" property in a neighbourhood in order to profit through rehabilitation induced changes. This affects the structure of ownership in RRAP-eligible areas, reduces the number of units that remain vacant due to their "uninhabitable" condition, leads to some displacement of existing tenants and reduces the size of the low-income housing stock.

6) The RRAP and NIP programs appear to change expectations regarding the neighbourhood's future and reduce the risk in rehabilitation investment. In turn, this encourages investors and rehabilitation entrepreneurs.

7) The RRAP program encourages most the first-time rehabilitators. Owners with experience in rehabilitation work show a greater propensity to rehabilitate on their own. The program may be serving as a vehicle for reducing risk and giving owners the chance of gaining experience and on-the-job training. RRAP is a determinant of rehabilitation activity by promoting the development of rehabilitation expertise.

8) The availability of the RRAP subsidy increases landlords' awareness of their buildings' need for rehabilitation. While some landlords drop their applications, most proceed to do some work on their buildings. RRAP is a determinant by increasing the landlord's awareness of his or her building's condition.

9) The importance of RRAP as a factor affecting rehabilitation would intensify with increases in subsidy amounts.* The less professional landlords say they would have carried out more extensive projects had subsidies been larger. The constraints on rent and amount of work to be done would become less odious to landlords who perceive the subsidy as a price for doing work they consider unnecessary. Larger subsidies would lead to a larger number of applicants for RRAP.

10) The work carried out by professional landlord-rehabilitators would not be affected by increases in subsidy levels: these landlords are already carrying out the projects they deem their buildings need. Since the importance of RRAP to the professional rehabilitator appears to be due more to its neighbourhood impact than to its change in perceived costs, the increase in subsidy levels should not have a large impact on the type of owners attracted to NIP areas. Increasing subsidy levels would increase program take-up and the data provide no evidence that this increase would change the structure of ownership within

---

* RRAP subsidy levels have been increased since the interviews for this study were carried out.

RRAP-eligible areas. It would not lead to a reduction in the low-income housing stock and would not change the social fabric of neighbourhoods.

11) This conclusion does not apply to tax inducements. Changes in tax legislation would not offer substantial benefits to the lower-income owners of property within RRAP-eligible neighbourhoods. Furthermore, most landlords would not understand the nature of the inducement unless an aggressive information dissemination program was implemented. Changes in tax legislation would encourage most the rehabilitation entrepreneur. Increases in capital cost allowances would increase the proportion of absentee owners. The motives behind the induced rehabilitation projects would not be invoked by sentiment, pride in ownership, good will and the aim of improving the owner's own housing. The survey results suggest that the reasons motivating most rehabilitation decisions would change and be more focussed on revenue increases made possible by attracting "better" tenants. More buildings would be "gutted" and renovations would be promoted and the supply of low-income housing would be reduced. Tax incentives would induce more rehabilitation-minded owners to buy deteriorated property and would thereby increase the rate and extent to which the older stock is upgraded.

    Increases in subsidy levels would encourage more RRAP applications from owners living in the neighbourhood and in the candidate buildings. The side-effects would differ from those of changes in tax policy.

12) The immediate impact of any policies promoting rehabilitation depends on the extent and the rate at which the local supply of rehabilitation services can expand to meet the emerging demand. In cities such as London and Vancouver, where prices of doing rehabilitation work appear to be higher, an increase in subsidy levels would partially be shifted to suppliers. The industry would expand and the extent of subsidy shifting would be reduced along with inter-regional price differences.

13) RRAP can become a more important determinant than it is by improving program delivery procedures. Information regarding program constraints should be better disseminated and should be given to landlords at the time they make their application. Payments to contractors should be speeded up along with responses to requests for inspections to reduce delays and uncertainty. Public relations could be improved.

## 12. CONCLUSIONS

The most frequent reason landlords gave for deciding to rehabilitate their buildings simply concerned their recognition of their building's need for repairs. The second most frequently mentioned factor concerned the availability of government assistance. The third sought improvements in the building's appearance.

The main determinants of rehabilitation activity are the landlord's recognition of the building's need for work and his or her acceptance that the need is great enough to justify the expenditure of effort and money. The recognition of the need for work may come as a result of a particular failure such as the building's roof starting to leak. It may come with the general awareness that the building no longer offers suitable habitation. In this case, the awareness may be sparked by the recognition that other buildings in the neighbourhood are being improved, by being informed about RRAP subsidies, or simply by the owner's growing sense that the building's condition is not what it could and ought to be. Many landlords "fixed-up" their property to make it a better place for their tenants or themselves and to be proud of their building.

Financial considerations are important occasioning factors. They determine whether or not a landlord proceeds to carry out his or her rehabilitation plans. For some landlords, financial considerations are primary. The absentee landlords, the more experienced rehabilitators, the owners of two or more other rental residential buildings, and corporate owners consider the reduction of tenant complaints, attraction of better tenants, ability to increase rents or reduce vacancies as important factors. The others, the less experienced rehabilitators, and owner-occupants, more often justify rehabilitation by the belief that the work increases the life of their building and offers a dramatic increase in their property value. On average, landlords believe property values increase by twice the amount of their own expenditures.

The determinants for the professional landlord-rehabilitator and the RRAP area owner-occupant differ. For the more professional landlord, financial considerations are important motivating factors. They tend to own buildings in worse condition, they do more extensive work and they get higher net returns from rehabilitation investments. The more professional landlord more often buys property and applies for RRAP loans within 12 months. They buy the "worse" condition buildings, do the most extensive rehabilitation work, and appear to gain the largest returns from their investments. This group is influenced by the availability of RRAP loans and by the neighbourhood trends generated by RRAP(P) and NIP.

The main conclusion this study develops shows the RRAP area landlord as being a small business operator who has pride in his or her building, would like it to look better and offer better housing conditions, is encouraged to carry out rehabilitation work by the availability of subsidies, resents having to accept the accompanying rent restrictions and work requirements but generally does quite well by carrying out the needed rehabilitation work. Not a single applicant who could provide the information needed to do a pre-tax present value calculation had a negative net present value. The survey research also identifies the emergence of a group of rehabilitation entrepreneurs who, encouraged by RRAP subsidies and RRAP- and NIP-induced neighbourhood changes, buy the "worse" condition buildings to carry out major renovations.

Policy changes that aim to stimulate rehabilitation may have different impacts on the two groups of landlords. Changes in capital cost allowances would encourage most the "professional" rehabilitation entrepreneur and would encourage least the average landlord who lives in his or her building and rents out one or two suites. Increases in RRAP subsidy levels would encourage both groups. Improvements in the subsidy delivery system would affect most the type of landlord who owns most of the buildings within RRAP-eligible neighbourhoods.

## 13. ACKNOWLEDGEMENTS

The CMHC Steering Committee was particularly helpful in this study. Its members carefully reviewed initial drafts of the questionnaire and helped develop the final survey instruments. Their insights regarding the rehabilitation process proved invaluable in the development of the hypothesis to be tested. I particularly want to thank Katharine Kemp, the project co-ordinator, Robert Hale, Rita Martin, André Asselin, Gary Kyer, and Pauline Whelan. I would also like to thank Chuck Lyon of Statistics Canada for consultations and advice regarding the nature of survey instruments and strategy for survey administration.

CMHC Branch Office Managers were most generous with their time in developing the lists of RRAP applicants. I would like to thank Mr. Gil Mervyn, Mr. G. Playford, Mr. M. Tucker and Mr. Gilles Thibeault of Vancouver, London, Halifax and Quebec City.

I would like to express my appreciation for the persistence, thoroughness and high quality work of Corinne Angell who directed the survey execution stages of the study. Appreciated was the contribution of Professor Dominique Achour of Laval University for taking charge of the Quebec City survey and for interviews with the managers of NIP area banks and other lending institutions. I would also like to thank Janice Doyle and Bonnie Schoenberger for typing countless sets of tables and taking charge of the final report production stage of work.

# SUMMARY OF FINDINGS

## 1. INTRODUCTION

This study identifies the determinants of rental residential rehabilitation activity within RRAP-eligible areas. It explains why some RRAP applicants proceed to rehabilitate their buildings and why some drop their applications. It explains why some rehabilitate without RRAP and why other landlords drop their applications and do not rehabilitate. The study identifies the factors that affect the extent of rehabilitation activity occurring within RRAP-eligible areas. The survey research answers questions on the characteristics of the RRAP-eligible neighbourhoods, buildings and landlords; on the type of rehabilitation work carried out or contemplated by RRAP applicants; and on the financial returns to the building before and after rehabilitation. Finally, the conclusions address changes that might increase the effectiveness and the take-up of the RRAP program.

## 2. CITY, NEIGHBOURHOOD, BUILDING AND LANDLORD CHARACTERISTICS

### 2.1 The Four Cities

The survey of RRAP applicants was carried out in Vancouver, London, Halifax and Quebec. The cities were chosen primarily because they represent different markets and regions, and because the 1980 rental RRAP take-up was higher in these cities than in most other Canadian urban areas. The take-up in 1980 allowed a sample yielding at least 50 respondents from each city.

A review of selected statistics shows that relevant stock characteristics and market conditions vary across the four cities. Vancouver has the bouyant market with low vacancy rates, dramatic housing price increases and the smallest proportion of older rental apartment units. Quebec is distinguished by large government subsidies due to the stacking of federal, provincial and municipal grants. London has the largest proportion of surviving old multiple units that could become candidates for rental rehabilitation. Halifax has the highest recent rate of increase in RRAP take-up and 1980 showed the program's contribution to this city's housing stock and industry to be the greatest.

## 2.2 Program Take-up

Vancouver, with its tight housing market in 1980, virtually zero vacancy rate and escalating housing prices, had the highest proportion of dropped RRAP applications. The subsidy imposes constraints on the type and extent of work required, on rent increases and resale of property, and many landlords in this city consider the constraints to impose a cost that is higher than the value of the subsidy. Vancouver has the highest proportion of applications who, after dropping their RRAP application, proceeded with unassisted rehabilitation projects.

Quebec had no respondents dropping their RRAP application to rehabilitate on their own. It has the highest proportion of applicants (75.7%) who proceeded with the rehabilitation and drew on federal, provincial and municipal subsidies. The small proportion of cancelled applications in Quebec is due to the large subsidies.

London had the highest proportion of respondents dropping their application and not rehabilitating their buildings. RRAP officials

suggest that program take-up was slow in 1980, in part, because landlords were skeptical regarding government programs. It has been slower than might be expected given the large proportion of inner city buildings that are in need of rehabilitation. The take-up was slow because landlords are unwilling to accept RRAP rent restrictions. The demand for rehabilitation services, however, appears to have placed a strain on contractors. Most are busy with federally and provincially subsidized energy conservation work and rehabilitations, and bid-prices are said to be high. The rehabilitation services market does not appear to be competitive.

Halifax respondents tend to stay with RRAP and to rehabilitate their buildings. The rate of cancellation in this city was only 5% higher than among the heavily subsidized Quebec clients. Two reasons for the relatively high completion rate are offered by RRAP officials. One is that the take-up rate has increased as more landlords have learned about the benefits of RRAP rehabilitation. The second and more important reason is the attraction of investors to NIP areas. The more experienced landlords purchase the deteriorated housing with a RRAP-subsidized rehabilitation project in mind. They are therefore unlikely to cancel their applications.

## 2.3 Building Characteristics

### 2.3.1 Building Size

The 218 sampled projects contain 743 dwelling units. Fifteen percent of the applicants had only one unit in their building and

ten percent had more than five units. The largest building in the sample contains 23 units, while the average has 3.4 units. The unit size distribution across cities shows some variation. Vancouver buildings have the largest number of units, 4.03, and the London projects had the smallest, 2.65. The size of the buildings, as defined by the average number of rooms they contain, also differs among cities. The average building in the sample had 12.3 rooms before it was rehabilitated. Quebec buildings had 14.5 rooms, Vancouver 13.5, Halifax 11.6 and London 9.9.

### 2.3.2 Building Structure

Most of the RRAP applicants' buildings are wood-frame. Thirty-two respondents, mostly from London, describe their buildings as having "brick" or "masonry" structures, and most of these buildings have not been rehabilitated despite the likelihood that their owners would be eligible for a 5% CCA while owners of the wood frame buildings can claim 10%.

### 2.3.3 Wall Materials

Exterior wall materials are varied. Quebec City has mostly brick faced buildings. One-quarter of the buildings in the sample have neither wood, stucco nor brick walls. Some of these buildings are clad with a variety of materials, some have aluminium siding, and some asbestos shingles. The relative permanence and durability of the brick veneers are not related to the likelihood that owners will save the building through rehabilitation rather than allow it to run down

and be demolished. The statistically significant difference in wall materials across rehabilitation status is due to the varying proportion of rehabilitated buildings in the four cities and the fact that the buildings' materials are, to a large extent, a function of the city they are in.

### 2.3.4 Building Age

The average RRAP-applicant's building is 66 years old. Half of the buildings in the sample were built before 1915, 64% were built before 1920, and 90% before 1945. Only 5% were built since 1960. Building age distribution varies systematically across cities. London has the oldest buildings, with an average age of 72 years, followed by Halifax and then Quebec City. The average Vancouver building was built 55 years ago. The age distribution also differs among landlords' RRAP application status. The RRAP rehabilitated buildings are the oldest, and the non-rehabilitated buildings are, on average, 10 years younger. Owners with older buildings have a higher propensity to complete RRAP rehabilitations. This finding is consistent with the view that the subsidy is taken up by owners of buildings that need more rehabilitation as a result of increased building deterioration and increased functional obsolescence.

## 2.4 Landlord Characteristics

### 2.4.1 Income

Fifty-six percent of the landlords reported $16,000 or less in taxable income in 1980. Eighty-four percent reported $25,000 or less. Only four of the 176 respondents to the income question reported more than $55,000 in taxable income for 1980. Income is unrelated to whether or not a landlord proceeds with a rehabilitation project. This conclusion cannot be generalized because the sample includes only landlords who considered a RRAP-assisted rehabilitation project. Owners of some RRAP area properties who may be rich, may not consider rehabilitation and may simply hold the deteriorating property for its land value.

### 2.4.2 Tenure

Almost half (48%) of rental RRAP applicants live in their buildings. The propensity to rehabilitate with RRAP assistance or to drop applications does not vary across owner-occupant, absentee landlord status. Income distributions differed between landlord-occupant and other owners. No landlord-occupant made more than $45,000 in taxable income; 68.6% earned less than $16,000 compared to 44.6% of absentee landlords.

### 2.4.3 Age

The age distribution of RRAP applicants was reviewed but no difference was found across application status. Program administrators in London and Halifax, as well as findings from a Quebec City

study on rehabilitation,* suggest that NIP areas have an unusually high proportion of elderly landlords. The 1971 census shows that an average of 29.4% of the population in the four cities is over 55 years of age compared to 24.3% in the sample. Since NIP area owners tend to be older by comparison to landlords in other parts of the cities and because the sample of RRAP applicants is younger than the city average head of household, it should follow, a fortiori, that the elderly landlords have the lowest propensity to rehabilitate their buildings.

### 2.4.4 Corporate Status

Almost 90% of landlords interviewed own their buildings personally or in partnership arrangements. Only 11% of RRAP applicants are corporations. While the corporate owner's motives and financial considerations may differ from the unincorporated landlords, the difference is not related to their propensity to proceed with a rehabilitation project or a RRAP application. No statistical difference was found in the proportion of corporate owners across the three groups of applicants. Corporate and non-corporate owners have similar buildings as defined by their size, type and structural material.

Statistically significant differences in the proportion of corporate owners in the RRAP applicant sample exist among the four cities: 24% of the Halifax and 13% of the London RRAP applicants

---

* Analyse des Investissement Immobiliers, CUI-16295 (A), Faculté des Sciences de l'administration, Université Laval, le 3 décembre, 1981.

are corporations, while less than 4% of Vancouver and Quebec landlords are incorporated. This observation is consistent with the Halifax RRAP officials' belief that investors are attracted to NIP areas by lower property prices and the potential for carrying out rehabilitation projects.

### 2.4.5 Building Management

Almost all the sampled buildings are managed by their owners. Only 12 out of 215 respondents employed people to help manage their buildings. These observations are consistent with the general view of NIP area landlords as being, at best, small business operators.

The relationship between RRAP application status and management style is statistically significant. RRAP clients differ from other owners in having a greater propensity to manage their own properties without help; owners hiring help to manage their properties are less likely to rehabilitate than owners who manage their own property.

### 2.4.6 Landlords' Property Holdings

Forty-one percent of RRAP applicants own more than one rental residential building. While the general income level of applicants is quite low, the property holdings of a large proportion of applicants is quite extensive. The landlords with other property own an average of 4.0 rental residential buildings; the owner with the largest holdings owns 60 buildings.

While 89 out of 218 applicants owned other buildings at the time of their application, only 41 owned other buildings that could benefit

from rehabilitation. No statistical relationship was found between the size of the applicant's real estate portfolio and his or her RRAP application status. However, 79.2% of corporate compared to 38.9% of non-corporate applicants own other buildings. No statistically significant difference was found in the number of buildings owned by corporate and non-corporate landlords. Only 19.2% of landlords living in their buildings own other buildings compared to 60.5% for absentee landlords. The 20 owner-occupants with other buildings had, on average, two other rental residential properties compared to 4.6 buildings owned by absentee landlords.

### 2.4.7 Landlords' Rehabilitation Experience

Thirty-six percent of the respondents have carried out other rehabilitation projects within the last five years. On average, they rehabilitated just over two buildings each. The most active rehabilitator improved 12 buildings during the last five years. The proportion of owners who have previous experience varies with the applicant's status: only 27% of the respondents who did not rehabilitate the building for which they took out a RRAP application carried out other rehabilitation projects. A larger proportion of the respondents (37.1%) who completed their RRAP application had rehabilitation experience. Fifty-seven percent of the owners who rehabilitated without RRAP have carried out other projects.

The survey results show that owners with rehabilitation experience have a greater propensity to rehabilitate the other buildings they own; and to rehabilitate without RRAP assistance. These results

suggest the possibility that owners gain experience in rehabilitation work with RRAP, and once they have the experience they are sufficiently confident to proceed and finance their own rehabilitation projects.

The respondents' experience with rehabilitation varies with corporate status and whether or not the landlord lives in the building requiring rehabilitation. Only 32.5% of non-corporate owners carried out other projects compared to 66.7% of corporate owners. The non-corporate owners who did other projects completed an average of 1.9 compared to 3.4 for corporate owners. Despite the corporate owners' higher propensity to engage in repeated rehabilitation projects, most rehabilitation work is carried out by 89% of the respondents who are not incorporated. The statistics show that the more professional landlords have a much greater tendency to rehabilitate their buildings. While this finding does not prove that the rehabilitation potential of these buildings coupled with federal assistance programs attracts these landlords, it is consistent with this hypothesis.

## 2.5 Period of Ownership

RRAP applicants owned their buildings for an average of 8.37 years before making their application. The length of time the buildings were owned does not systematically vary across the four cities.

One-third of the sampled landlords acquired their buildings since the RRAP program was started in 1974. Twenty-seven percent of the RRAP applicants bought their properties within 12 months of applying

for RRAP assistance. The statistical analysis shows that the propensity to rehabilitate is highest among recent purchasers of property within RRAP-eligible areas. The more "professional" landlord has a greater propensity to apply for RRAP assistance within 12 months of property purchase. The more "professional" landlords are characterized as being incorporated, not living in the building in need of rehabilitation, owning other buildings, having rehabilitation experience or hiring property managers. While the analysis of corporate and non-corporate owner behaviour across the four cities involved statistical tests of very low power, the analysis showed a remarkable difference for Halifax: 58% of corporate owners compared to 15% of non-corporate owners applied for RRAP within 12 months of buying their property. Halifax is distinguished by having the highest proportion of corporate landlords in the sample and the highest proportion applying for assistance within a year of their property purchase.

The data support the observations of the Halifax RRAP officials who have noticed that the program encourages investors to buy property within NIP areas in order to rehabilitate with RRAP subsidies. It supports the view that property turnover rates are related to rehabilitation activity.

## 2.6 Perceived Neighbourhood Changes

Most landlords perceive some rehabilitation activity within their neighbourhoods. Very few noticed no rehabilitated buildings in their immediate neighbourhood. Thirty-one percent noticed many rehabilitations.

The responses do not systematically vary with RRAP application status, and perception of neighbourhood change therefore does not affect the applicants' propensity to complete their plans. Among cities, Halifax respondents are distinguished from others in that 41% noticed many rehabilitation projects in their neighbourhood. In the Quebec group, only two perceived no other rehabilitation projects in their immediate neighbourhood.

The proportion of owner-occupants noticing many rehabilitated buildings in their neighbourhood is 22.8% as compared to 34.5% of the absentee owners. Forty-seven percent of apartment building owners noticed many rehabilitations, as compared to 28% of other landlords.

The respondent's sense of improvement in his or her neighbourhood is strongly correlated with perceptions of the extent that other buildings in the neighbourhood are being rehabilitated. Landlords who perceived their neighbourhood as not changing were asked if changes in neighbourhood conditions were important to them when deciding to rehabilitate their buildings. Changing conditions were "very important" to only 29%. This proportion is low, given that 78% saw their neighbourhood as improving or staying the same, and that most respondents in interview situations tend to exaggerate the importance of positive events. Halifax respondents are distinguished from those in the other cities by having more than twice as many landlords considering neighbourhood change to be "very important". Halifax is also the city with the largest proportion of respondents perceiving an extensive amount of rehabilitation in the neighbourhood and believing that their areas are improving.

A relatively strong correlation was found between the importance of neighbourhood changes and the respondents' perception of the extent of rehabilitation activity within the neighbourhood: 41.9% who saw many rehabilitations saw the changes as improving their neighbourhood. The data show that the proportion of landlords who saw no new buildings being built tended to view neighbourhood change as being important in their rehabilitation decision. This finding supports the conclusion that rehabilitation and NIP sponsored improvements, not replacement construction, are associated with the perceptions of the type of neighbourhood change that is an important consideration in most landlords' decisions to rehabilitate.

## 2.7 Discussion

The review of building, landlord and neighbourhood characteristics shows that the propensity to rehabilitate and apply for RRAP assistance is greater for landlords recently purchasing their property. The more "professional" the landlord, the greater is the chance that he or she considers rehabilitation soon after the acquisition of the property. Building age is related to the probability that the owner proceeds with the rehabilitation.

The age of the landlords was thought to be an important factor affecting the probability the building is rehabilitated, but the number of cases in the sample is too small to reveal statistically significant differences. The landlords' perceptions of neighbourhood conditions are, in general, not related to their propensity to

rehabilitate. The applicants who consider neighbourhood trends to be important in their decision to rehabilitate appear to be judging these trends by the extent that other buildings in their neighbourhood are being rehabilitated, and not by the presence of new buildings. Landlords owning buildings in areas within which new construction was taking place chose to rehabilitate rather than replace their own buildings. RRAP may therefore skew decisions in favour of rehabilitation over replacement construction.

While landlord incomes tend to be low, the property holdings of some are extensive. Many have carried out other rehabilitation projects and are experienced in this type of work. The degree of "professionalism" among the landlords as exhibited by their property holdings, rehabilitation experience or corporate holdings does not vary across RRAP application status. The probability a landlord proceeds with a rehabilitation is not enhanced by these factors when they are taken together. Differences, however, exist across the cities. Halifax RRAP applicants have the largest proportion of most experienced landlords. Forty percent of Vancouver and Quebec landlords own only the building they live in and have no previous rehabilitation experience.

The breakdown of landlords according to their experience shows no major differences in their propensity to rehabilitate. The number of years they own the buildings, however, is correlated: 44.4% of the most professional landlords applied for rehabilitation assistance within 12 months of buying the building. This compares to 15.5% for the inexperienced single building owners. The

"professionalism" of the landlord as exhibited by his or her corporate status, property holdings or experience with rehabilitation work is not related to the building characteristics variables.

## 3. BUILDING CONDITION AND REHABILITATION WORK

### 3.1 Building Condition

Fifty-one percent of the applicants perceive their buildings to be in about the same condition as those in the immediate neighbourhood. Twenty-two percent consider their buildings to be in "better" shape and 27% in "worse" condition. The symmetry of "better" and "worse" condition responses suggests that the applicants' buildings are representative of those in the RRAP-eligible neighbourhoods: the applicants are each others' neighbours. The survey results show building condition to be a factor determining whether or not a RRAP applicant proceeds with the contemplated rehabilitation project. Almost 70% of the applicants who did not rehabilitate own buildings that are above the median value of the RRAP applicants' buildings within each city. After excluding the landlords who perceive their buildings to be in similar condition to those in the neighbourhood, 65.0% of the landlords completing RRAP projects perceive their buildings to be in "worse" condition. The probability that an owner rehabilitates is directly related to perceived deterioration in building condition.

While the condition of the buildings owned by RRAP applicants appears to be representative of the general condition of the housing

stock in NIP- and RRAP-eligible areas, the probability that an owner completes rehabilitation work with RRAP assistance is highest for the landlords with the "worse" buildings. The incidence of RRAP subsidies falls most heavily on the owners and occupants of the buildings that are in "worse" condition. Since "worse" describes the owner's perception of his building's condition relative to the condition of surrounding buildings, the findings are consistent with theory suggesting that an improvement in neighbourhood conditions encourages rehabilitation activity.

## 3.2 Building Condition and Landlord Characteristics

Contingency tables were prepared to examine the relationship between landlord characteristics and the condition of their building. The landlords' perception of their buildings' condition did not differ across income levels, age, owner-occupant status, and most of the variables describing the landlords' perception of changes in their neighbourhood.

While 27% of all applicants perceive their building to be in "worse" condition, half the corporate owners perceive their buildings as being in "worse" condition. The data suggest that the more "professional" the landlord, the "worse" the building he or she owns.

The strongest relationship between a landlord characteristic and building condition arises from first year buyer-applicants: 50.9% of owners applying for RRAP within 12 months of their property purchase consider the building to be in "worse" condition than that

of the surrounding buildings. The more "professional" rehabilitators as well as the more determined RRAP applicant tend to buy poorer quality buildings with a view to rehabilitation.

RRAP, therefore, acts as a determinant of rehabilitation in three ways: first, it induces some landlords to rehabilitate because it lowers their perceived costs; second, it changes the structure of ownership and brings landlords to NIP areas who are more inclined to rehabilitate; third, by encouraging rehabilitation and improving some buildings, others appear to be in worse condition and these buildings are sought by the owners who have a greater propensity to carry out rehabilitation projects.

## 3.3 The Rehabilitation Work

Painting is the item of work most landlords (57.6%) do when rehabilitating their buildings. This is to be expected because most other work done to a building also requires the repainting of parts of the building. Adding insulation is the second most frequent item, and its prevalence is due, in part, to the landlords' concern for energy conservation and, in part, to the availability of the CHIP subsidies. The least frequent item of work involved adjustments or corrections in the building's structure: only 12.4% of the respondents affected the structure of their building.

In general, the main types of rehabilitation work are painting, insulation, electrical system, roofing, other energy conservation, plumbing and improvements in building fire safety. With the exception of painting, the items are non-cosmetic in nature. The least frequent

items of work are structural repairs, changing appliances, "other" work, landscaping, fixing up the building's exterior and carpeting. With the exception of structural repairs, the least frequent items of work are the cosmetic ones.

Twenty-seven percent of respondents had made alterations to the building's plan by moving interior walls. Almost one-quarter "gutted" their buildings, and 12% changed the number of units. Statistically significant differences were not found across RRAP application categories.

With some exceptions, the type of work carried out by the RRAP assisted landlords and the owners proceeding on their own was similar. RRAP-assisted landlords tended to emphasize insulation and other energy conservation. Non-RRAP rehabilitators more frequently added appliances and carpets. The RRAP recipients more frequently did a "lot of work" on more expensive items such as the electrical system and plumbing.

Differences in the amount of work done were found among the four cities. In most cases, the difference is due to a "lot of work" on more items by a higher percentage of Quebec City respondents. The three items of work Quebec landlords failed to carry out involved changing appliances, improving building exteriors and "other" work. Appliances are not covered by RRAP or Quebec subsidies and the Quebec sample did not draw one landlord who rehabilitated without RRAP.

The extent of work done varies with building condition. For items other than roofing, the largest proportion of owners doing a "lot of work" considered their buildings to be in "worse" condition than those in the immediate neighbourhood. The difference is largest

for costly plumbing and electrical items. Owners with buildings in the "worse" building condition category most frequently changed floor plans and "gutted" their buildings.

While landlord-occupants are not distinguished by their perception of their buildings' condition, owner-occupants carried out a "lot of work" on each item less frequently than absentee landlords. Almost half of the most professional owners "gutted" the building. Forty percent changed its plan. Twenty-three percent changed the number of units. It appears that landlords approach rehabilitation with one of two attitudes. Some rehabilitate their buildings to "fix them up", correct some basic defects and basically catch up on deferred maintenance. Others rework their buildings extensively and change their function. The extensive rehabilitation work the most professional landlords carry out is tantamount to renovation.

Of the most professional group of owners, the first year RRAP applicants tended to undertake the most extensive renovations: 37.5% of the professional first year buyer-applicants changed the number of units in their buildings; 54.2% moved interior walls; and 58.3% "gutted" the building. The more professional landlord who buys buildings in order to rehabilitate them does, most frequently, the greatest amount of work. One-third of all buildings within which the number of units changed were bought by this group, and this group represents 11% of all applicants. The results strongly indicate that the "professional" landlord buys RRAP-eligible property with the intent of rehabilitating it and, thereby, attracting more affluent tenants.

## 3.4 The Effect of Changing RRAP Subsidy Levels

The comparison of the work done by Quebec City landlords with that done by respondents from the other three cities shows that increases in subsidy amount lead to more extensive rehabilitations.

Landlords were asked if they would have carried out the same amount, less or no work had subsidies not been available. Twenty-seven percent of respondents would have done some work had subsidies not been available, and 35% of the respondents say they would have done the same amount of work. Half the RRAP recipients in Quebec compared to 15% for the other cities would not have rehabilitated without subsidies. Since 38% would have done some but not as much work, the subsidy also increases the extent to which older stock is upgraded.

The data clearly show that subsidies change the physical and business environments of RRAP-eligible neighbourhoods, and the changes may affect property investors in different ways. RRAP may have improved a neighbourhood to the extent that new investors become interested in the area and buy lower-priced property with the intention of making money through rehabilitation. The availability of funds may make other landlords believe that the neighbourhood will change in the future and, thereby, reduce the risk they perceive to be associated with rehabilitation investment. These indirect effects influence the more business-minded landlords more than the owner-occupant with an extra basement suite.

Landlords accepting RRAP assistance were asked if they would have done more work had the subsidy been twice as large: 43.8% said

they would. Few Quebec City respondents would have done more work: the combination of federal, provincial and municipal assistance allows them to do as much work as they believe their buildings merit. Vancouver, the city with the lowest vacancy rate and largest property price increases in 1980, showed the largest proportion of landlords who would have carried out more extensive projects had more assistance been available.

The amount of work landlords would do with twice the amount of public assistance varies with some of their characteristics. The owners of the buildings in the poorest condition would have done more if more money had been offered. Owner-occupants tend to do less work than others but would not do more if assistance levels were doubled: sixty percent of owner-occupants complete the work they deem their buildings need. A large proportion of corporate owners say that larger subsidies would induce them to do more work. 38.7% of the owners who bought property and applied for RRAP grants within a year would have done more with larger grants while 45.9% of the longer-term owners have more work to do on their buildings. While the difference in ratios is not statistically significant, the lower proportion of first year applicants suggests that most of the respondents did the work they believed their buildings need. Aside from miscellaneous items, painting and insulation, changes in subsidy levels are not related to the major work items typically carried out in a rehabilitation project.

## 3.5 Discussion

The RRAP applicants' buildings are representative of those within eligible neighbourhoods. The sample does not appear to be biassed in favour of "better" or "worse" condition buildings. While the applicants' buildings are representative, the owners who complete rehabilitation with RRAP assistance more often own the "worse" buildings. The importance of RRAP as a determinant of rehabilitation increases as building condition decreases.

Building condition is related to landlord characteristics. The buildings in "worse" condition are more often owned by corporations and by landlords with more rehabilitation experience. The most striking relationship, however, is between period of ownership and building condition: the "worse" condition buildings tend to be owned by landlords who applied for RRAP assistance within 12 months of purchasing the property. Since a large proportion of the more "professional" landlords own the "worse" condition buildings for a relatively short period of time, the characteristics of these landlords are not the cause of the deterioration. These landlords selected the poor quality buildings, and the rapidity of their rehabilitation planning and RRAP application suggests that they selected the poorer quality buildings in order to rehabilitate them.

The availability of government assistance to landlords affects their propensity to engage in rehabilitation projects and increases the amount of work they do. The main impact of a program change would be on the overall level and extent of rehabilitation activity. The analysis does not lead to the conclusion that the structure of

ownership of rental residential property within RRAP-eligible areas would be affected by changes in subsidy levels.

The analysis of building condition and landlords' perception of their neighbourhoods shows that rehabilitation activity yields positive external consequences which stimulate further rehabilitation work. This, in turn, suggests the existence of a threshold level after which subsidies are no longer needed in a neighbourhood to encourage more rehabilitation. Once the threshold is reached, and neighbourhood trends toward deterioration have been reversed, the critical importance of subsidies may be reduced. This is not a firm conclusion. It is based, in part, on the observation of a relatively large proportion (35%) of landlords who say their decisions were not affected by the availability of the subsidy. It is also based in part on the finding that rehabilitation activity, once started, generates more rehabilitation by changing the physical environment of neighbourhoods and by introducing another stratum of buildings into the "worse-than the neighbourhood-norm" category.

## 4. REHABILITATION EXPENDITURES AND RETURNS

### 4.1 Pre-rehabilitation Property Values

The market value of the applicants' buildings range from $6,000 to $475,000. The median value is $40,000; 25% of respondents believe their building is worth $75,000 or more. Twenty-five percent of the 186 owners (21.3% of the sample) who could assess the market value of their property see it as being $25,000 or less. Property values

vary across the three groups of RRAP applicants. This variation is explained by the large inter-city differences in market value: Quebec's average value is $27,254, Vancouver's $165,675. The property value differences are to a great extent explained by variation in land value: Vancouver landlords, with the highest property values, report 70.6% of the value lies in the land. Quebec respondents see only 15.9% of the value being due to location or lot size.

The variation in property values across RRAP application status is largely, but not entirely, due to inter-urban differences. After the values have been adjusted to remove the effect of inter-urban variation, the highest value property is held by landlords who dropped their application and did not rehabilitate.

## 4.2 Pre-rehabilitation Revenues and Expenses

Gross annual revenues ranged from $1,000 to $91,705. The quartiles are $3,600, $5,900 and $9,900. The average rental revenue is $9,120. These amounts include the rent imputed for owner-occupants. No statistical difference in the gross rental revenue was found among the three RRAP application categories. A difference was found among the four cities: Vancouver landlords' gross revenues are, on average, $13,913 compared to $9,282 for Halifax, $7,358 for Quebec and $6,988 for London.

The average annual gross expenditures on mortgage payments, property taxes, heating, insurance and other operating costs is

$7,416. The variation in average expenditures across cities is higher than it is for the revenue variable. Vancouver landlords' expenses are, on average, $11,424 compared to $8,464, $5,719 and $4,317 for Halifax, London and Quebec, respectively.

The average net annual rental revenue of the 159 applicants who could answer the two questions on annual revenues and expenses was $1,227. Differences among cities can be discerned by grouping Vancouver, London and Halifax. Quebec respondents gain the lowest average revenues, but their low property value reduces mortgage payments. As a result, their net annual revenues are on average almost $3,000 higher than those for the respondents in other cities.

When 1980 capital gains are included with net revenues, the differences in net gains across RRAP categories become statistically significant. Non-RRAP rehabilitators gained, on average, $11,615 during 1980 compared to $5,864 and $3,199 for the non-rehabilitators and RRAP clients. The London owners realized the least ($-1,686) and the Vancouver landlords the largest gains ($21,070). Quebec owners show little change over their net revenues.

## 4.3 Cost of Rehabilitation

The total costs of rehabilitation differ substantially among application status and cities. The work done by RRAP clients costs, on average, $21,360. Non-RRAP rehabilitators' work costs $47,721. The work non-rehabilitators contemplated doing would, in their view, have cost $25,169. Vancouver landlords spent $38,158 compared to

only $14,356 by London owners. Quebec City and Halifax landlords spent $27,876 and $22,876.

London landlords tend to do the least amount of work while those in Quebec do the most. Vancouver landlords, as indicated by the number of items on which they do a "lot of work", do only a little more work than their London counterparts. The Vancouver rehabilitators do not focus on expensive work items, therefore, the only plausible explanation for the high Vancouver costs is the high price charged by contractors. Vancouver landlords paid 77.5% more for doing less work than the average landlord in the other three cities.

Due to high rehabilitation prices, the fixed $2500 maximum subsidy level reduces the relative effect the RRAP program has on Vancouver landlords' propensity to rehabilitate. Since the market conditions that cause inflation in rehabilitation contract prices also create pressure for rapid increases in rent levels, the relative cost of RRAP-imposed constraints increases as the relative value of the subsidy declines.

The fixed $2500 per unit maximum subsidy is a major factor explaining differences among the four cities in RRAP drop-out rates. The high prices charged for rehabilitation work also helps explain why 38% of the Vancouver landlords, compared to 27% of the applicants in the other cities, did not rehabilitate despite this city's extraordinary demand for rental units.

## 4.4 Rehabilitation Subsidies

The average rehabilitation subsidy is $2,246 per dwelling unit. Quebec landlords gain more assistance than other landlords and receive an average of $1,539 per unit from provincial and municipal sources. The average RRAP grant is $1,713 per unit and the Quebec respondent gains, on average, the largest RRAP loan. The Quebec landlord also has larger buildings. The RRAP recipients had on average 44.9% of their costs covered by government grants. RRAP loans paid 35.0% of rehabilitation costs, and this proportion differs among cities. Quebec landlords receive the lowest proportional assistance from RRAP (30.23%) and Vancouver owners receive the second lowest (33.5%).

Vancouver RRAP clients spend less on rehabilitation than non-RRAP rehabilitators, and they have one-third of their costs covered by federal subsidies. Vancouver RRAP clients, on average, pay 65¢ for each rehabilitation dollar compared to 62¢, 58¢ and 43¢ for Halifax, London and Quebec owners. Since the marginal dollar is at par for the majority of clients in cities outside the province of Quebec, their decisions regarding the extent of rehabilitation remain unaffected by the subsidy.

## 4.5 Borrowed Funds

The RRAP clients who borrow take out an average loan of $11,098. Non-RRAP rehabilitators borrowing funds, on average, borrow $42,009. This is based on only thirteen cases and may not be representative. Non-RRAP rehabilitators borrow to cover 60% of their total costs, while RRAP clients borrow to cover one-third of the total rehabilitation costs.

Approximately 40% of the landlords who borrowed took out a consumer or demand loan. The same proportion financed a part of their work with mortgages. Twenty percent borrowed from "other" sources such as family members. The only noticeable difference among the categories is in the extent that demand loans were used. None was taken out in Quebec. Thirteen out of a total of 14 were taken by RRAP clients in the other three cities. Non-RRAP rehabilitators borrowing funds would spend an average of $6,732 in interest payments a year, compared to $1,341 for RRAP clients. Given their average annual gross revenue was $7,839, they would have to increase rents by at least 86% to maintain their pre-rehabilitation annual net revenues. RRAP recipients would have to increase rents by only 15.2% to maintain their pre-rehabilitation cash flow position. The interest payments differ among the four cities, with the Vancouver landlord paying an average of $5,555 in interest, and the London owner spending an average of $641. In Vancouver, a 40% increase in average gross revenues, and in London a 9% increase, would offset the average interest payment. These observations apply only to landlords who debt-financed a part of their rehabilitation projects. Fifty-four percent of the landlords in the sample did not borrow funds from financial institutions.

## 4.6 Financing Difficulties

Respondents were asked if a bank had ever turned down their request for a loan. Fifteen percent of the 150 responses to this

question were affirmative. The data show that RRAP clients had the least problem obtaining financing, and that owners who did not rehabilitate had the most difficulty. The Quebec City respondents, receiving the largest subsidies, had the fewest loan request refusals. The analysis of rehabilitation costs and their impact on property values shows that RRAP can cover the 25% of costs that an owner applying for a conventional mortgage to finance the work would otherwise have to pay out of his or her own funds.

For some 10% of the non-rehabilitators, financing difficulties are clearly reasons for not proceeding with rehabilitating their buildings.

Respondents were asked for reasons the institutions gave for not issuing the loan. Half were told their property was "too old". Four respondents stated that the lender was "not interested" in lending. Three respondents could not qualify for a loan, and the same number said they could not borrow from the institution because the lender was unfamiliar with their particular case. Two were offered "bad loan terms". Interviews were carried out with seven managers of lending institutions in Quebec City NIP areas. No specific criteria are applied because of the funds being used for rehabilitation purposes.

## 4.7 Rate of Return on Rehabilitation Investments

Respondents perceive rehabilitation to increase the market value of their buildings by an average of $25,217. The 12 non-RRAP rehabilitators who answered this question perceived an average increase in

property value of $65,033. RRAP clients and the landlords who did not rehabilitate believed rehabilitation would add about $22,000 to the market value of their property.

After the borrowed funds are deducted from expected property price increases, and if subsidies are not accounted for, the non-RRAP rehabilitators would expect to make almost twice as much as RRAP clients. The ratio of the expected increase in property value to total cost of the rehabilitation work is 1.088. The ratio for non-RRAP rehabilitators is 1.777. RRAP clients expect property values to increase by 1.09 times the cost of the work. Non-rehabilitators expect to cover only 81% of the costs by means of property price increases.

While RRAP clients believe their property value goes up by the amount the rehabilitation costs, they expect to make substantial personal gains. Since they personally cover only 55.1% of rehabilitation costs, they not only recapture their own outlays through property price increases, but, on top, receive a 98% immediate capital gain. Both groups of rehabilitators have the same expectations regarding the immediate return on their own rehabilitation outlays, both believe that one dollar spent on rehabilitation yields approximately two dollars in property value increases.

Rehabilitation increases annual revenues by an average of $4,242; the source of the gains appears to differ for RRAP recipients and for the other landlords. RRAP clients who reduced vacancies as a result of rehabilitation gain more than non-RRAP rehabilitators.

The applicants who dropped RRAP show greater gains from rent increases, but the number of cases is too small to permit statistically significant conclusions.

The average change in net revenues for landlords experiencing changes is $2,113. Landlords who did not realize increases in revenues or landlords who did not borrow are excluded from this statistic. The average annual net increase in rental revenue is $2,501 for RRAP clients. It is zero for non-RRAP rehabilitators. The average increases differ among the cities: Vancouver owners gain an average of $481 a year, while Quebec landlords show an average net revenue gain of $3,559.

The addition of 1981 capital gains to net revenues raises the average annual gain to $3,995. After capital gains are accounted for, no statistically significant difference can be identified among RRAP applicant or city categories.

The net annual rental revenue divided by the owners' equity for RRAP clients is 11.48%. After including 1981 capital gains, Vancouver and Quebec landlords show a 78.4% and 67.3% return on their equity respectively. In 1981, London and Halifax landlords gained 18% and 30% return on their equity in rehabilitated buildings. The two polar cities show the highest rates of return to rehabilitated buildings: bouyant housing markets and high subsidy levels are important determinants of rehabilitation.

## 4.8 Summary of Returns due to Rehabilitation

Most RRAP applicants find rehabilitation investment to be profitable. The impact respondents believe rehabilitation investments have on the value of their property should eliminate their need to increase rents. If the owners' belief regarding the effect of rehabilitation on property value is sincere, then the landlord should see the rehabilitation process as a means of converting each of his or her dollars into two dollars worth of real estate. The profitability of the rehabilitation projects of owners who know their costs and returns are summarized in Table I. The data illustrate why applicants who dropped their applications decided not to rehabilitate.

The third column lists the discounted net revenue due to rehabilitation plus the property price increase due to the work, less the owner's personal expenditures on the project. A 6% net of inflation discount rate was used and zero values were excluded. In no case was the net present value negative. The difference between the RRAP clients and the non-RRAP rehabilitators is apparent. The subsidy reduces the RRAP clients' need to borrow and thereby increases their long-run gains. The non-RRAP rehabilitators' gains are due primarily to property value increases.

While the difference in the net present values between the two groups of rehabilitators is large, the high standard deviation suggests that although rehabilitation appears to be profitable, it is not profitable to all landlords. The rate of return on rehabilitation investment greatly varies.

Table I

Summary of Financial Returns Due to Rehabilitation

| | 1 EXPECTED PROPERTY VALUE INCREASES LESS TOTAL COST OF REHABILITATION | | | 2 EXPECTED PROPERTY PRICE INCREASES LESS OWNERS' COSTS | | | 3 NET PRESENT VALUE (Discounted at 6%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean | Std.Dev. | n | Mean | Std.Dev. | n | Mean | Std.Dev. | n |
| All Cases | - 3,054 | 15,539 | 125 | 2,768 | 15,875 | 122 | 43,652 | 68,481 | 83 |
| RRAP Rehabilitated | - 2,744 | 13,841 | 91 | 5,337 | 13,451 | 88 | 49,342 | 69,641 | 71 |
| Non-RRAP Rehabilitated | 9,677 | 21,880 | 11 | 9,677 | 21,880 | 11 | 9,984 | 51,481 | 12 |
| Not Rehabilitated | -10,370 | 14,906 | 23 | -10,370 | 14,906 | 23 | n.a. | | |
| F-Statistic (Sig.) | 6.85 | (.0015) | | 11.88 | (.0000) | | | | |
| Vancouver | 4,607 | 22,305 | 17 | 6,697 | 18,859 | 19 | 15,932 | 53,496 | 14 |
| London | - 2,479 | 8,668 | 30 | 741 | 8,323 | 30 | 24,132 | 53,951 | 14 |
| Halifax | - 1,513 | 14,279 | 33 | 2,611 | 13,947 | 33 | 36,361 | 59,397 | 24 |
| Quebec | - 7,461 | 16,037 | 45 | 2,550 | 19,896 | 40 | 70,629 | 79,253 | 31 |

The Column 1 statistic showing owners able to recover all but $3,054 in property value increases may be misleading. The values taken by this variable range from -$45,000 to $46,850. Fifty-eight percent show property value increases that are below rehabilitation costs. Twenty-five percent show they would need to recover more than $9,045 through net revenue increases to break even. After the RRAP and Quebec subsidies are considered, the financial picture changes. While the subsidies do not affect the outlyers, they move 20% of the landlords from a negative to a positive capital gains position. After the subsidy is accounted for, only 19% instead of 25% need recover more than $9,000 through rent increases before their investment breaks even. The standard deviation, however, still remains high. The number of landlords requiring rent increases to cover costs is still substantial. While the average rehabilitator may do quite well, and while all do well in the long run, a substantial proportion can claim that rehabilitation is not financially worthwhile in the short term.

## 4.9 Financial Returns and Landlord Characteristics

The building condition of RRAP applicants is not correlated with pre-rehabilitation net revenues. The number of items of work carried out is also not related to pre-rehabilitation revenues. The data provide no evidence in support of the view that RRAP applicants' cash flow positions affect their propensity to rehabilitate. Subsidy amount and rehabilitation costs are positively correlated with pre-rehabilitation revenues, suggesting that landlords with higher net revenues and with larger subsidies carry out more extensive projects.

Building condition is related to the amount of rehabilitation work carried out: the applicants with worse buildings do more work. The net returns to rehabilitation investments increase with the number of work items carried out. The worse the condition of the applicants' buildings the greater are the net revenues due to rehabilitation.

Table II summarizes net revenues before rehabilitation and the change resulting from the work. It presents the net gains which include the 1981 property value increase (column 3). The net present value of the owners' rehabilitation investment given in row 4 was computed by discounting net revenues due to rehabilitation at a 6% net of inflation rate and adding to this amount the difference between the property value increase due to rehabilitation and the owners' personal outlays.

The net revenues before rehabilitation differ statistically only across the owner-occupant/absentee landlord categories. Owner-occupants have higher net revenues. Their imputed rents are included in the $2,514 average annual net revenue statistic presented in Column 1.

Column 2 shows that owners with the worse buildings increase their annual net revenues by $3,467 as a result of rehabilitation while owners of better buildings gain $1,610 as a result of upgrading their buildings. The most "professional" class of owners and first year buyer-applicants gain, on average, $2,500 more in net annual revenues than other landlords. Row 3 shows the spread across the groups to increase after 1981 capital gains are added to net revenues. The statistics in row 4 show large differences in the average present value of the rehabilitation projects carried out by owners who know

Table II

Breakdown of Net Returns by Building Condition and Selected Landlord Characteristics

| | 1 Net Revenue Before Rehab. | | | 2 Net Revenue Due to Rehab. | | | 3 Net Gains Due to Rehab. | | | 4 Net Present Value of Rehab. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Std Dev | n | Mean | Std Dev | n | Mean | Std Dev | n | Mean | Std Dev | n |
| "Better" Condition | 128 | 7,685 | 34 | 1,610 | 2,497 | 16 | 3,266 | 4,677 | 15 | 31,836 | 39,914 | 15 |
| "Same" Condition | 1,697 | 5,933 | 80 | 1,442 | 3,265 | 48 | 3,167 | 4,329 | 46 | 30,021 | 58,049 | 38 |
| "Worse" Condition | 1,123 | 7,710 | 41 | 3,467 | 4,642 | 32 | 5,257 | 5,273 | 32 | 69,968 | 85,297 | 29 |
| F-statistic (sig.) | .631 | (.5333) | | 3.10 | (.0496) | | 2.01 | (.1405) | | 3.29 | (.0425) | |
| Owner-occupants | 2,514 | 7,134 | 80 | 1,517 | 2,945 | 51 | 3,387 | 3,622 | 48 | 35,615 | 54,169 | 44 |
| Absentee Landlords | - 75 | 6,078 | 91 | 2,774 | 4,432 | 46 | 4,334 | 5,748 | 46 | 52,718 | 81,486 | 39 |
| F-statistic (sig.) | 6.06 | (.0149) | | 2.76 | (.1001) | | .92 | (.3395) | | 1.29 | (.2586) | |
| Class I (1 bld. own-occ.) | 1,435 | 5,919 | 58 | 1,265 | 2,860 | 38 | 2,789 | 3,200 | 35 | 30,749 | 52,361 | 31 |
| Class II | 394 | 4,887 | 64 | 1,607 | 3,407 | 33 | 2,849 | 3,940 | 33 | 28,585 | 60,772 | 27 |
| Class III (corp. owner) | 2,345 | 9,970 | 37 | 3,996 | 4,708 | 26 | 6,551 | 6,380 | 26 | 75,923 | 83,902 | 25 |
| F-statistic (sig.) | 1.03 | (.3611) | | 4.90 | (.0095) | | 6.40 | (.0025) | | 4.30 | (.0168) | |
| 1st Year Owners | 703 | 8,852 | 43 | 3,715 | 4,414 | 32 | 6,324 | 6,051 | 32 | 73,632 | 80,533 | 28 |
| Others | 1,465 | 5,853 | 113 | 1,022 | 2,691 | 61 | 2,251 | 2,906 | 59 | 21,997 | 4,496 | 53 |
| F-statistic (sig.) | .39 | (.5323) | | 13.3 | (.0004) | | 18.85 | (.0000) | | 13.88 | (.0004) | |

the cost and revenue implications of the work. The more professional landlords, the first year buyer-applicants and the owners of the worse buildings carry out rehabilitation projects yielding present values that are some $40,000 to $50,000 higher than those of other landlords. These statistics show that there are at least two discernible groups of landlords applying for RRAP. Their motives differ and the returns they expect to gain from rehabilitation also differ.

These conclusions require some qualification. Only 81 out of 147 landlords who rehabilitated their buildings could answer all the questions on revenues and costs that allow the computation of net present values. Of these, none had projects yielding negative present values. The qualifications concern the 45% of rehabilitators who did not know their net revenues, costs, loan amounts, or changes in property value. The statistics only allow the conclusion suggesting that rehabilitation is clearly profitable for landlords who know what they are doing, know how much it costs and know its impact on net revenues. This qualification is not severe. The other landlords, by virtue of the fact they do not know their costs, may carry out rehabilitation projects for reasons other than financial returns.

## 5. LANDLORDS' STATED REASONS FOR REHABILITATING THEIR BUILDINGS

Half the RRAP applicants who proceeded to rehabilitate their buildings gave as their main reason for doing the work, "the building needed it." The availability of government assistance was the second most frequently mentioned factor that inspired the landlords' rehabilitation decision. The third reason owners say they rehabilitate is to improve the building's appearance. Only 15% did the work specifically to increase property values. While the need to repair the building or the desire to improve its appearance and take advantage of RRAP assistance were the main reasons owners say they decided to rehabilitate, the previous chapter shows that they believe the expenditures to yield at least an equal increase in their building's value. The owners who say they rehabilitate to carry out needed repairs or improve appearances gain these benefits as well as an increase in their equity.

The main differences in the landlords' stated reason for rehabilitation are due to the larger proportion of Quebec City landlords considering government assistance, building life and property maintenance standards as being very important.

Less than half of the landlords dropping their RRAP applications and not rehabilitating their buildings mentioned financial reasons for their decision not to proceed with the work. Many planned to continue their projects on a piecemeal basis. Forty-two percent changed their plans when they found out about RRAP restrictions and work requirements.

Analysis of the respondents' reasons for dropping their RRAP applications and the review of their recommendations regarding program

changes suggests that program take-up would be increased if administrative procedures were simplified and streamlined.

## 6. CONCLUSIONS

The RRAP program is a major determinant for most landlords with eligible property. It affects rehabilitation decisions in a number of ways.

1. The subsidies lower the perceived cost of rehabilitation.
2. The work requirements imposed by the program clearly make most subsidy recipients do more work than they would do without the program.
3. The work directly inspired by both the subsidy's direct inducement and the work requirements improve neighbourhood conditions. This, in turn, increases landlords' propensities to rehabilitate.
4. RRAP changes the relative attractiveness of rehabilitation over replacement construction. Neighbourhood improvements are perceived to be related to the extent of rehabilitation that has occurred in an area. The perceptions are not related to the presence of recent construction. RRAP is, therefore, both a direct and indirect determinant of rehabilitation activity by changing the substitution conditions between rehabilitation and replacement construction.
5. The changing neighbourhood conditions coupled with subsidy assistance encourages rehabilitation-minded landlords to purchase the "worse" property in order to profit through rehabilitation. This

changes the structure of ownership in RRAP eligible areas, reduces the number of units that remain vacant due to their condition and leads to some displacement of existing tenants.

6. The RRAP and NIP programs change expectations regarding the neighbourhood's future and reduce the risk in rehabilitation investment. In turn, this encourages investors.
7. The RRAP program encourages first-time rehabilitators. Owners with experience in rehabilitation work show a greater propensity to rehabilitate on their own. The program may, therefore, be serving as a vehicle for reducing risk and giving owners the chance of gaining experience and on-the-job-training. RRAP is a determinant of rehabilitation activity by encouraging entrepreneurship.
8. The availability of the RRAP subsidy encourages applications and thereby increases the owners' awareness of their building's need for rehabilitation. While some drop their applications, most proceed with some work. RRAP is a determinant by increasing the landlord's awareness of his or her building's condition.

The importance of RRAP as a factor affecting rehabilitation would intensify with increases in subsidy amounts. The less professional landlords would carry out more extensive projects and larger numbers would apply.

The work done by the more professional landlords would not be affected very much by increases in subsidy levels because they already carry out the amount of work they deem the building needs. Since the

importance of RRAP to professional investors is due more to its neighbourhood impact than its change in perceived costs, the increase in subsidy levels should not have a large impact on the type of owners attracted to NIP areas. It would, therefore, not lead to a reduction in the low-income housing stock.

This conclusion does not apply to rehabilitation inducements that are in the form of increased capital cost allowances or other changes to income tax legislation. Changes in tax legislation would not provide many benefits to owners of property within RRAP-eligible neighbourhoods, and even if they did, most would not understand the nature of the inducement unless it was well publicized and explained. Changes in tax legislation would encourage the larger rehabilitation-minded owner to buy property for the purpose of rehabilitation. The proportion of absentee owners would increase. The reasons motivating most rehabilitation decisions would change and be more focussed on revenue increases made possible by the attraction of "better" tenants. The supply of low-income housing would be reduced.

Increases in subsidy levels would encourage more RRAP applications and more rehabilitation. The effects, however, would differ from that of changes in tax policy. It would not create the undesirable side-effects. Its impact on stock quality would depend on the extent that local supply of contractors doing rehabilitation work can expand to meet the emerging demand.

RRAP can become a more important determinant than it is by improving program delivery procedures. Information regarding rent ceilings and work requirements associated with the subsidy should be clearly articulated and better disseminated to prospective applicants. Payments to contractors should be speeded up and application and inspection procedures streamlined. Public relations could be much improved. This would cause fewer drop-outs and program take-up would be increased as the generally marred reputation of the program would be corrected.

1) Recognition of the Need for Rehabilitation

Rehabilitation needs emerge in response to:

1) cash flow problems,
2) errors in judgement,
3) code enforcement drives,
4) precipitating events,
5) increasing operating costs,
6) changing preferences and demand,
7) sale of property,
8) government assistance programs.

The survey does not support the cash flow problems or code enforcement explanations. Applicants with cash flow problems do not differ from others in their propensity to carry out rehabilitation projects. Open-ended responses to the question asking owners why they rehabilitated their building indicate that code enforcement drives did not encourage them to rehabilitate.

Precipitating events, such as the roof springing a leak, is a common factor making owners aware of their buildings' need for rehabilitation. The owners' recognition of rehabilitation needs is also triggered by changing neighbourhood conditions, increased awareness

of rehabilitation potentials brought about by the RRAP program, and the recognition that rehabilitation is a financially feasible option given the possibility of obtaining a subsidy.

Increasing operating costs is a factor encouraging rehabilitation but the data do not show it as being primary. Energy costs are a concern to landlords but their drive to reduce these costs through conservation measures appears to be generated by their earlier decision to rehabilitate. Once the owner decides to rehabilitate, he or she adds insulation, fixes the furnace, or carries out other energy conservation plans.

The data show that 27% of RRAP applicants purchased their buildings within 12 months of their application. The analysis shows property turnover rates to be related to the owner's propensity to apply for RRAP and, therefore, to the owner's recognition of his or her building's need for rehabilitation. The awareness of a building's need for rehabilitation is in many cases the reason a landlord buys it, especially the more "professional" landlords.

2) Motivation for Rehabilitation

Once a building's need for rehabilitation is recognized, the landlord needs a motive for doing the work. The data show that motivations differ across landlord categories. The more professional landlord, the absentee owner and the first year buyer-applicants are primarily moved by financial concerns.

Table III illustrates the extent of work carried out by selected groups of landlords. Half of the most experienced rehabilitators or larger property owners or corporate landlords, in effect, "gut" their

buildings during rehabilitation. Within this group the most extensive rehabilitation/renovation projects are carried out by the first year buyer-applicants. The more professional landlords buy the "worse" buildings to gain through renovation. Their motives are financial and they seek increases in net rental revenues.

Table III

Proportion of Landlords Making Major Changes to Their Buildings

| | Owner-Occupants % | Professional Class III Landlords % | Class III, 1st Year Buyer-applicants % |
|---|---|---|---|
| "Gut" building | 21 | 49 | 58 |
| Move interior walls | 23 | 40 | 54 |
| Change unit numbers | 13 | 23 | 36 |

Half of the RRAP applicants surveyed are owner-occupants. Fifty-six percent of all respondents earn less than $16,000 a year. Sixty percent of RRAP applicants own no other building. Sixty-four percent have no rehabilitation experience. Many of these owners are less clearly motivated by financial concerns. The less professional RRAP client is least concerned with rent increases and vacancy reductions.

Financial considerations are not paramount for this type of landlord even though most believe that their own expenditures on rehabilitation are more than offset by increases in property value and, therefore, by increases in wealth. The possibility of obtaining a subsidy, the need to get repairs done, the desire to have a "beautiful" building are the main motivating forces behind their rehabilitation decision. This is not to say that these owners would not like

to increase rents or reduce operating costs. Their complaints regarding RRAP restrictions clearly indicate that net revenue is a consideration, but not the primary one.

3) Conditions Affecting the Landlord's Propensity to Rehabilitate

The size of available subsidies is a determinant of rehabilitation activity within RRAP eligible neighbourhoods. Most respondents mentioning the availability of subsidies as the key factor in their decision are from Quebec. Half of the Quebec landlords, compared to 15% of the respondents from the three other cities, say they would not have carried out their project were it not for the available assistance. Forty-four percent of rehabilitators would have done more work had subsidy amounts been twice what they were.

RRAP helps landlords recognize their buildings' need for rehabilitation. In some cases, the availability of subsidies motivates the landlords. Sixty-two percent of RRAP clients as well as non-RRAP rehabilitators consider government assistance programs as being "very important" factors affecting their rehabilitation decisions. The RRAP program has an indirect as well as a direct effect on rehabilitation activity. Its indirect effect is coupled with NIP impacts on neighbourhood condition. Positive changes in neighbourhood conditions encourage landlords who perceive their neighbourhoods as changing. Neighbourhood changes brought about by new construction are not factors affecting rehabilitation activity. Changes brought about by rehabilitation activity are determinants of rehabilitation.

Building condition is a factor affecting rehabilitation activity. Seventy percent of the owners who dropped their RRAP applications and did not rehabilitate had buildings that were above the median value of applicant buildings in their city.

Market conditions were shown to affect RRAP program take-up. Increasing property values and housing shortages appear to stimulate rehabilitation activity and drive up the price of rehabilitation services. The $2,500 maximum RRAP loan is less of an inducement in tight housing markets while the rent controls are more of a constraint. Market conditions are determinants of rehabilitation activity by affecting the relative importance of RRAP grants and restrictions, the possibility of gaining rent increases and the price and availability of rehabilitation services.

The main conclusion this study develops shows the RRAP area landlord as generally being a small business operator who has pride in his or her building, would like it to look better and offer better housing conditions, is encouraged to carry out rehabilitation work by the availability of subsidies, resents having to accept the accompanying rent restrictions and work requirements but generally does quite well by carrying out the needed rehabilitation work. Not a single applicant who could provide the information needed to do a pre-tax present value calculation had a negative net present value. The survey also identifies the emergence of a group of rehabilitation entrepreneurs who, encouraged by RRAP subsidies and RRAP and NIP induced neighbourhood changes, buy the "worse" condition buildings to carry out major renovations.